Abstract:

Microscope and its optical controlling method capable of making an optical adjustment of first and second lights being made in easy with high accuracy, and capable of developing the effect of the superresolution and expected optical performance surely, is provided. The microscope comprises first deflection means 14a and 14b for deflecting the first light from the first light source 11 that excites the molecule included in the specimen 74 from the ground-state to the first electronically excited state, two dimensionally second deflecting means 7a, 17b for deflecting a second light from a second light source 12 to excite the molecule from the first electron exciting state to the second electron exciting state with more higher energy level, two dimensionally, a combining means 16 for synthesizing deflected first light and second light on the same optical axis or on the mutually parallel optical axis, and third deflection means 19a, 19b for deflecting the synthesized first light and the second light simultaneously, wherein the luminescence is detected, by adjusting the optical axes of the first light to the third light by the first to third deflection means, and by overlapping part of these lights by the beam-condensing optical system 72 and irradiating them on the specimen 74.

Selected Drawings

Fig. 1